MAINTENANCE

SECTION MA

CONTENTS

CONTENTS (Cont'd)

Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

NFMA0001

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER” used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. The SRS system composition which is available to NISSAN MODEL A33 is as follows (The composition varies according to the destination and optional equipment.):

- For a frontal collision
  The Supplemental Restraint System consists of driver air bag module (located in the center of the steering wheel), front passenger air bag module (located on the instrument panel on passenger side), seat belt pre-tensioners, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.
- For a side collision
  The Supplemental Restraint System consists of front side air bag module (located in the outer side of front seat), satellite sensor, diagnosis sensor unit (one of components of air bags for a frontal collision), wiring harness, warning lamp (one of components of air bags for a frontal collision).

Information necessary to service the system safely is included in the **RS section** of this Service Manual.

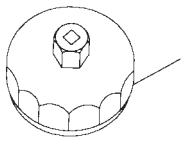
WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance should be performed by an authorized NISSAN dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the RS section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. Spiral cable and wiring harnesses covered with yellow insulation tape either just before the harness connectors or for the complete harness are related to the SRS.**

Special Service Tool

Special Service Tool

NFMA0002

Tool number Tool name	Description
KV10115801 KV10115800 (Kent-Moore Europe make) Oil filter wrench	Removing oil filter  14 faces, Inner span: 64.3 mm (2.531 in) (Face to opposite face) NT362

PRE-DELIVERY INSPECTION ITEMS

Shown below are Pre-delivery Inspection Items required for the new vehicle. It is recommended that necessary items other than those listed here be added, paying due regard to the conditions in each country.

Perform applicable items on each model. Consult text of this section for specifications.

UNDER HOOD — engine off

☐ Radiator coolant level and coolant hose connections for leaks
☐ Battery fluid level, specific gravity and conditions of battery terminals
☐ Drive belts tension
☐ Fuel filter for water or dusts, and fuel lines and connections for leaks
☐ Engine oil level and oil leaks
☐ Clutch and brake reservoir fluid level and fluid lines for leaks
☐ Windshield and rear window washer and headlamp cleaner reservoir fluid level
☐ Power steering reservoir fluid level and hose connections for leaks

ON INSIDE AND OUTSIDE

☒ Remove front spring/strut spacer (If applicable)
☐ Operation of all instruments, gauges, lights and accessories
☐ Operation of horn(s), wiper and washer
☐ Steering lock for operation
☐ Check air conditioner for gas leaks
☐ Front and rear seats, and seat belts for operation
☐ All moldings, trims and fittings for fit and alignment
☐ All windows for operation and alignment
☐ Hood, trunk lid, door panels for fit and alignment
☐ Latches, keys and locks for operation
☐ Weatherstrips for adhesion and fit
☐ Headlamp aiming
☐ Tighten wheel nuts (Inc. inner nuts if applicable)
☐ Tire pressure (Inc. spare tire)
☐ Check front wheels for toe-in
☐ Install clock/voltmeter/room lamp fuse (If applicable)
☐ Install deodorizing filter to air conditioner (If applicable)
☒ Remove wiper blade protectors (If applicable)

UNDER BODY

☐ Manual transmission/transaxle, transfer and differential gear oil level
☐ Brake and fuel lines and oil/fluid reservoirs for leaks
☐ Tighten bolts and nuts of steering linkage and gear box, suspension, propeller shafts and drive shafts
☒ Tighten rear body bolts and nuts (Models with wooden bed only)

ROAD TEST

☐ Clutch operation
☐ Parking brake operation
☐ Service brake operation
☐ Automatic transmission/transaxle shift timing and kickdown
☐ Steering control and returnability
☐ Engine performance
☐ Squeaks and rattles

ENGINE OPERATING AND HOT

☐ Adjust idle speed
☐ Automatic transmission/transaxle fluid level
☒ Engine idling and stop knob operation (Diesel only)

FINAL INSPECTION

☐ Install necessary parts (outside mirror, wheel covers, seat belts, mat, carpet or mud flaps)
☐ Inspect for interior and exterior metal and paint damage
☐ Check for spare tire, jack, tools (wheel chock), and literature
☐ Wash, clean interior and exterior

☒ : Not applicable to this model

GENERAL MAINTENANCE

General maintenance includes those items which should be checked during the normal day-to-day operation of the vehicle. They are essential if the vehicle is to continue operating properly. The owners can perform the checks and inspections themselves or they can have their NISSAN dealers do them for a nominal charge.

OUTSIDE THE VEHICLE

The maintenance items listed here should be performed from time to time, unless otherwise specified.

Item		Reference page
Tires	Check the pressure with a gauge periodically when at a service station, including the spare, and adjust to the specified pressure if necessary. Check carefully for damage, cuts or excessive wear.	—
Windshield wiper blades	Check for cracks or wear if they do not wipe properly.	—
Doors and engine hood	Check that all doors, the engine hood, the trunk lid and back door operate properly. Also ensure that all latches lock securely. Lubricate if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released. When driving in areas using road salt or other corrosive materials, check for lubrication frequently.	MA-31
Tire rotation	Tires should be rotated every 10,000 km (6,000 miles).	MA-29

INSIDE THE VEHICLE

The maintenance items listed here should be checked on a regular basis, such as when performing periodic maintenance, cleaning the vehicle, etc.

Item		Reference page
Lamps	Make sure that the headlamps, stop lamps, tail lamps, turn signal lamps, and other lamps are all operating properly and installed securely. Also check headlamp aim.	—
Warning lamps and chimes	Make sure that all warning lamps and chimes are operating properly.	—
Steering wheel	Check for change in the steering conditions, such as excessive free play, hard steering or strange noises. **Free play: Less than 35 mm (1.38 in)**	—
Seat belts	Check that all parts of the seat belt system (e.g. buckles, anchors, adjusters and retractors) operate properly and smoothly, and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.	MA-32

UNDER THE HOOD AND VEHICLE

The maintenance items listed here should be checked periodically e.g. each time you check the engine oil or refuel.

Item		Reference page
Windshield washer fluid	Check that there is adequate fluid in the tank.	—
Engine coolant level	Check the coolant level when the engine is cold.	MA-17
Engine oil level	Check the level after parking the vehicle on a level spot and turning off the engine.	MA-21
Brake and clutch fluid levels	Make sure that the brake and clutch fluid levels are between the “MAX” and “MIN” lines on the reservoir.	MA-25, 29
Battery	Check the fluid level in each cell. It should be between the “MAX” and “MIN” lines.	—

PERIODIC MAINTENANCE (FOR EUROPE)

Maintenance Schedule for Petrol Engines (Annual Mileage < 30,000 km/year)

The following tables show the normal maintenance schedule. Depending upon weather and atmospheric conditions, varying road surfaces, individual driving habits and vehicle usage, additional or more frequent maintenance may be required.

Periodic maintenance beyond the last period shown on the tables requires similar maintenance.

Maintenance Schedule for Petrol Engines (Annual Mileage < 30,000 km/year)

NFMA0043S01

VQ ENGINE

NFMA0043S0101

Abbreviations: R = Replace, I = Inspect: Correct or replace if necessary, E = Check and correct the engine coolant mixture ratio, [ ] = At the specified mileage only

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference pages
Perform on a kilometer basis, but on an annual basis when driving less than 15,000 km (9,000 miles) per year	km x 1,000 (miles x 1,000) Months	15 (9) 12	30 (18) 24	45 (27) 36	60 (36) 48	75 (45) 60	90 (54) 72	105 (63) 84	120 (72) 96	
Engine compartment and under vehicle										
Engine oil (Use recommended oil)★		R	R	R	R	R	R	R	R	MA-21
Engine oil filter (Use NISSAN genuine part or equivalent)★		R	R	R	R	R	R	R	R	MA-21
Drive belts		I	I	I	I	I	I	I	I	MA-15
Cooling system		I	I	I	I	I	I	I	I	MA-19
Engine anti-freeze coolant (Use genuine NISSAN Anti-Freeze Coolant (L2N) or equivalent)	See NOTE (1)			E						MA-16
Air cleaner filter★					R				R	MA-20
Intake and exhaust valve clearance	See NOTE (2)									EM-51
Fuel and EVAP vapour lines			I		I		I		I	MA-20/ MA-24
Spark plugs Platinum-tipped type							[R]			MA-22
Fuel filter	See NOTE (3)									
Heated oxygen sensor (Exhaust gas sensor)★	See NOTE (4)									GI-43, MA-24, EC-454

NOTE:

(1) First replace at 100,000 km (60,000 miles)/60 months, then every 60,000 km (36,000 miles)/48 months.

(2) Periodic maintenance is not required. However, if valve noise increases, check valve clearance.

(3) Maintenance-free item. For service procedures, refer to FE section.

(4) Perform only according to “Maintenance Under Severe Driving Conditions” for models without Euro-OBD system. For models with Euro-OBD system, periodic maintenance is not required.

★ Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.

PERIODIC MAINTENANCE (FOR EUROPE)

Maintenance Schedule for Petrol Engines (Annual Mileage < 30,000 km/year) (Cont'd)

CHASSIS AND BODY MAINTENANCE

=NFMA0043S0102

Abbreviations: R = Replace I = Inspect: Correct or replace if necessary

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference pages
Perform on a kilometer basis, but on an annual basis when driving less than 15,000 km (9,000 miles) in a year.	km x 1,000 (miles x 1,000) Months	15 (9) 12	30 (18) 24	45 (27) 36	60 (36) 48	75 (45) 60	90 (54) 72	105 (63) 84	120 (72) 96	
Underhood and under vehicle										
Headlamp aiming		I	I	I	I	I	I	I	I	EL-45, EL-54
Wheel alignment (if necessary, balance & rotate wheels)		I	I	I	I	I	I	I	I	SU-8/ MA-27
Brake pads, rotors & other brake components★		I	I	I	I	I	I	I	I	MA-30
Foot brake, parking brake & clutch (for free play, stroke & operation)		I	I	I	I	I	I	I	I	BR-12/ BR-39/ CL-6
Brake booster vacuum hoses, connections, check valve			I		I		I		I	MA-30
Brake & clutch, systems and fluid (for level and leaks)		I	I	I	I	I	I	I	I	MA-25/ MA-29
Brake fluid★			R		R		R		R	BR-7, MA-29
Power steering fluid and lines (for level and leaks)		I	I	I	I	I	I	I	I	MA-31
ASCD vacuum hoses		I	I	I	I	I	I	I	I	EL-237
Supplemental air bag system	See NOTE (1)									RS-16
Ventilation air filter★			R		R		R		R	HA-130, HA-219
Manual transaxle gear oil (check for leakage).		I	I	I	I	I	I	I	I	MA-25
Automatic transaxle fluid (for level and leaks)★		I	I	I	I	I	I	I	I	MA-26
Steering gear & linkage, axle & suspension parts, drive shafts, exhaust system★			I		I		I		I	MA-25/ SU-7/ SU-23/ MA-31
Body corrosion	See NOTE (2)									MA-32

NOTE:

(1) Inspect at the first 10 years, and then every 2 years.

(2) Inspect once per year.

★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".

Maintenance Under Severe Driving Conditions (Annual Driving Distance < 30,000 km/year)

=NFMA0043S03

The maintenance intervals shown on the preceding pages are for normal operating conditions. If the vehicle is mainly operated under severe driving conditions as shown below, more frequent maintenance must be performed on the following items as shown in the table.

A — Driving under dusty conditions
B — Driving repeatedly short distances
C — Towing a trailer or caravan
D — Extensive idling
E — Driving in extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high
F — Driving in high humidity areas or in mountainous areas
G — Driving in areas using salt or other corrosive materials
H — Driving on rough and/or muddy roads or in the desert
I — Driving with frequent use of braking or in mountainous areas
J — Frequent off road use or driving in water
K — Sustained high speed driving
L — For models without Euro-OBD system

Driving condition												Maintenance operation	Maintenance interval
A	B	C	D	.	.	.	.	.	.	.	.	**Engine oil & engine oil filter**	
												Replace	Every 7,500 km (4,500 miles) or 6 months
A	.	.	.	.	.	.	.	.	.	.	.	**Air cleaner filter**	
												Replace	Every 30,000 km (18,000 miles) or 24 months
.	.	.	.	.	.	.	.	.	.	.	L	**Front Heated Oxygen Sensor**	
												Inspect	Every 30,000 km (18,000 miles) or 24 months
.	.	.	.	.	.	.	.	.	.	.	L	**Rear Heated Oxygen Sensor**	
												Inspect	Every 30,000 km (18,000 miles) or 24 months
A	.	.	.	.	.	.	.	.	.	.	.	**Ventilation air filter**	
												Replace	Every 15,000 km (9,000 miles) or 12 months
.	.	.	.	.	F	.	.	.	.	.	.	**Brake fluid**	
												Replace	Every 15,000 km (9,000 miles) or 6 months
.	.	C	.	.	.	.	H	.	.	.	.	**Automatic transaxle fluid**	
												Replace	Every 30,000 km (18,000 miles) or 24 months
A	.	C	.	.	.	G	H	I	.	.	.	**Brake pads, rotors & other brake system components**	
												Inspect	Every 7,500 km (4,500 miles) or 6 months
.	.	.	.	.	.	G	H	.	.	.	.	**Steering gear & linkage, axle & suspension parts, drive shafts, exhaust system**	
												Inspect	Every 15,000 km (9,000 miles) or 12 months

Maintenance Schedule for Petrol Engines (Annual Mileage > 30,000 km/year)

=NFMA0043S04

VQ ENGINE

NFMA0043S0401

Abbreviations: R = Replace, I = Inspect: Correct or replace if necessary, E = Check and correct the engine coolant mixture ratio

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference pages
Perform on a kilometer basis only.	km x 1,000 (miles x 1,000)	15 (9)	30 (18)	45 (27)	60 (36)	75 (45)	90 (54)	105 (63)	120 (72)	
Engine compartment and under vehicle										
Engine oil (Use recommended oil)★		R	R	R	R	R	R	R	R	MA-21
Engine oil filter (Use NISSAN genuine part or equivalent)★		R	R	R	R	R	R	R	R	MA-21
Drive belts		I	I	I	I	I	I	I	I	MA-15
Cooling system			I		I		I		I	MA-19
Engine anti-freeze coolant (Use genuine NISSAN Anti-Freeze Coolant (L2N) or equivalent)	See NOTE (1)			E						MA-16
Air cleaner filter★					R				R	MA-20
Intake & exhaust valve clearance	See NOTE (2)									EM-51
Fuel and EVAP vapor lines					I				I	MA-20/ MA-24
Spark plugs Platinum-tipped type							R			MA-22
Fuel filter	See NOTE (3)									
Heated oxygen sensor (Exhaust gas sensor)★	See NOTE (4)									GI-43/ MA-24/ EC-454

NOTE:

(1) First replace at 100,000 km (60,000 miles), then every 60,000 km (36,000 miles).

(2) Periodic maintenance is not required. However, if valve noise increases, check valve clearance.

(3) Maintenance-free item. For service procedures, refer to FE section.

(4) Perform only according to “Maintenance Under Severe Driving Conditions” for models without Euro-OBD system. For models with Euro-OBD system, periodic maintenance is not required.

★ Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.

CHASSIS AND BODY MAINTENANCE

=NFMA0043S0402

Abbreviations: R = Replace I = Inspect: Correct or replace if necessary

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference pages
Perform on a kilometer basis only.	km x 1,000 (miles x 1,000)	15 (9)	30 (18)	45 (27)	60 (36)	75 (45)	90 (54)	105 (63)	120 (72)	
Underhood and under vehicle										
Headlamp aiming			I		I		I		I	EL-45/ EL-54
Wheel alignment (if necessary, balance & rotate wheels)			I		I		I		I	SU-8/ MA-27
Brake pads, rotors & other brake components★			I		I		I		I	MA-30
Foot brake, parking brake & clutch (for free play, stroke & operation)			I		I		I		I	BR-12/ BR-39/ CL-6
Brake booster vacuum hoses, connections, check valve					I				I	MA-30
Brake & clutch, systems and fluid (for level and leaks)			I		I		I		I	MA-25/ MA-29
Brake fluid★					R				R	BR-7, MA-29
Power steering fluid and lines (for level and leaks)			I		I		I		I	MA-31
ASCD vacuum hoses			I		I		I		I	EL-237
Supplemental air bag system	See NOTE (1)									RS-16
Ventilation air filter★			R		R		R		R	HA-130, HA-219
Manual transaxle gear oil (check for leakage).			I		I		I		I	MA-25
Automatic transaxle fluid (for level and leaks)★			I		I		I		I	MA-26
Steering gear and linkage, axle & suspension parts, drive shafts, exhaust system★					I				I	MA-25/ SU-7/ SU-23/ MA-31
Body corrosion	See NOTE (2)									MA-32

NOTE:

(1) Inspect at the first 10 years, and then every 2 years.

(2) Inspect once per year.

★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".

Maintenance Under Severe Driving Conditions (Annual Driving Distance > 30,000 km)

=NFMA0043S06

The maintenance intervals shown on the preceding pages are for normal operating conditions. If the vehicle is mainly operated under severe driving conditions as shown below, more frequent maintenance must be performed on the following items as shown in the table.

A — Driving under dusty conditions
B — Driving repeatedly short distances
C — Towing a trailer or caravan
D — Extensive idling
E — Driving in extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high
F — Driving in high humidity areas or in mountainous areas
G — Driving in areas using salt or other corrosive materials
H — Driving on rough and/or muddy roads or in the desert
I — Driving with frequent use of braking or in mountainous areas
J — Frequent off road use or driving in water
K — Sustained high speed driving
L — For models without Euro-OBD system

Driving condition												Maintenance operation	Maintenance interval
A	B	C	D	.	.	.	.	.	.	.	.	**Engine oil & engine oil filter**	
												Replace	Every 7,500 km (4,500 miles)
A	.	.	.	.	.	.	.	.	.	.	.	**Air cleaner filter**	
												Replace	Every 30,000 km (18,000 miles)
.	.	.	.	.	.	.	.	.	.	.	L	**Front Heated Oxygen Sensor**	
												Inspect	Every 60,000 km (36,000 miles)
.	.	.	.	.	.	.	.	.	.	.	L	**Rear Heated Oxygen Sensor**	
												Inspect	Every 60,000 km (36,000 miles)
A	.	.	.	.	.	.	.	.	.	.	.	**Ventilation air filter**	
												Replace	Every 15,000 km (9,000 miles)
.	.	.	.	.	F	.	.	.	.	.	.	**Brake fluid**	
												Replace	Every 30,000 km (18,000 miles)
.	.	C	.	.	.	.	H	.	.	.	.	**Automatic transaxle fluid**	
												Replace	Every 60,000 km (36,000 miles)
A	.	C	.	.	.	G	H	I	.	.	.	**Brake pads, rotors & other brake system components**	
												Inspect	Every 15,000 km (9,000 miles)
.	.	.	.	.	.	G	H	.	.	.	.	**Steering gear & linkage, axle & suspension parts, drive shafts, exhaust system**	
												Inspect	Every 30,000 km (18,000 miles)

Fluids and Lubricants

NFMA0006S01

					Capacity (Approximate)		Recommended fluids and lubricants
					Liter	Imp qt	
Engine oil (Refill)	With oil filter				4.0	3-1/2 qt	API SG, SH or SJ*1 for Europe ILSAC grade GF-I or GF-II*1
	Without oil filter				3.7	3-1/4 qt	
Cooling system	With reservoir tank	For Europe	VQ20	LHD	8.5	7-1/2 qt	Genuine Nissan anti-freeze coolant (L2N) or equivalent for Europe*3
				RHD	8.2	7-1/4 qt	
			VQ30	LHD	7.7	6-3/4 qt	
				RHD	7.4	6-1/2 qt	
	Reservoir				0.7 (5/8)		
Manual transaxle gear oil	RS5F50A		Oil level L mm (in) 16 - 25 (0.63 - 0.98)		4.5 - 4.8	7-3/4 - 7-7/8 - 8-1/2 pt*4	API GL-4*1 Viscosity SAE 75W-90
	RS5F50V				4.25 - 4.55	3-3/4 - 4 qt	
Automatic transaxle fluid	RE4F04B/W				9.4	8-1/4 qt	Genuine Nissan ATF or equivalent*2
Power steering fluid					—	—	Type Dexron™III or equivalent
Brake and clutch fluid					—	—	DOT 3 or DOT 4 (US FMVSS No. 116)*4
Multi-purpose grease					—	—	NLGI No. 2 (Lithium soap base)

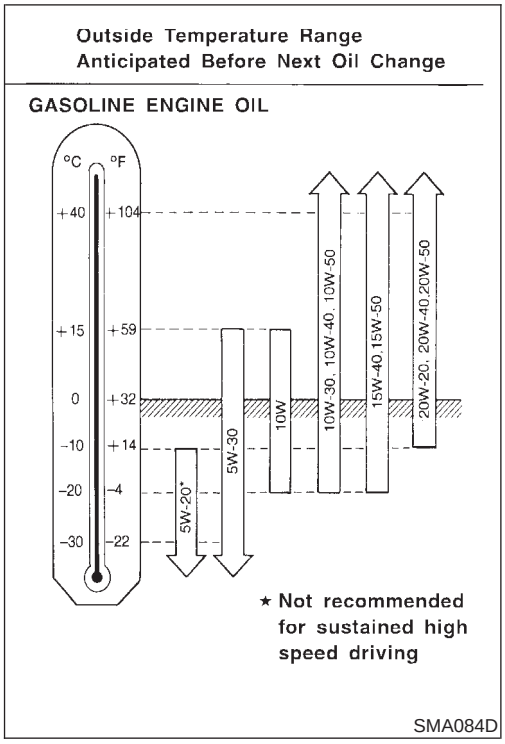
*1: For further details, see “SAE Viscosity Number”.

*2: Contact a Nissan dealership for more information regarding suitable fluids, including recommended brand(s) of Dexron™III/Mercon™ Automatic Transmission Fluid.

*3: Use Genuine Nissan anti-freeze coolant, or equivalent in its quality, in order to avoid possible aluminum corrosion within the engine cooling system caused by the use of non-genuine engine coolant.

Note that any repairs for the incidents within the engine cooling system while using non-genuine engine coolant may not be covered by the warranty even if such incidents occurred during the warranty period.

*4: Never mix different types of fluids (DOT 3 and DOT 4).



SMA084D

SAE Viscosity Number

=NFMA0006S02

- For warm and cold areas: 10W-30 is preferable for ambient temperature above −20°C (−4°F).
  5W-30 will positively improve fuel economy.
- For hot areas: 20W-40 and 20W-50 are suitable.

Outside temperature down to		Composition	
°C	°F	Engine coolant (Concentrated)	Demineralized water or distilled water
−15	5	30%	70%
−35	−30	50%	50%

SMA089D

Engine Coolant Mixture Ratio

NFMA0006S04

The engine cooling system is filled at the factory with a high-quality, year-round and extended life engine coolant. The high quality engine coolant contains the specific solutions effective for the anti-corrosion and the anti-freeze function. Therefore, additional cooling system additives are not necessary.

CAUTION:

When adding or replacing coolant, be sure to use only Genuine Nissan Anti-freeze Coolant (L2N) or equivalent. Because L2N is premixed type coolant.

The use of other types of engine coolant may damage your cooling system.

- When checking the engine coolant mixture ratio by the coolant hydrometer, use the chart below to correct your hydrometer reading (density) according to coolant temperature.

Mixed coolant specific gravity

Unit: specific gravity

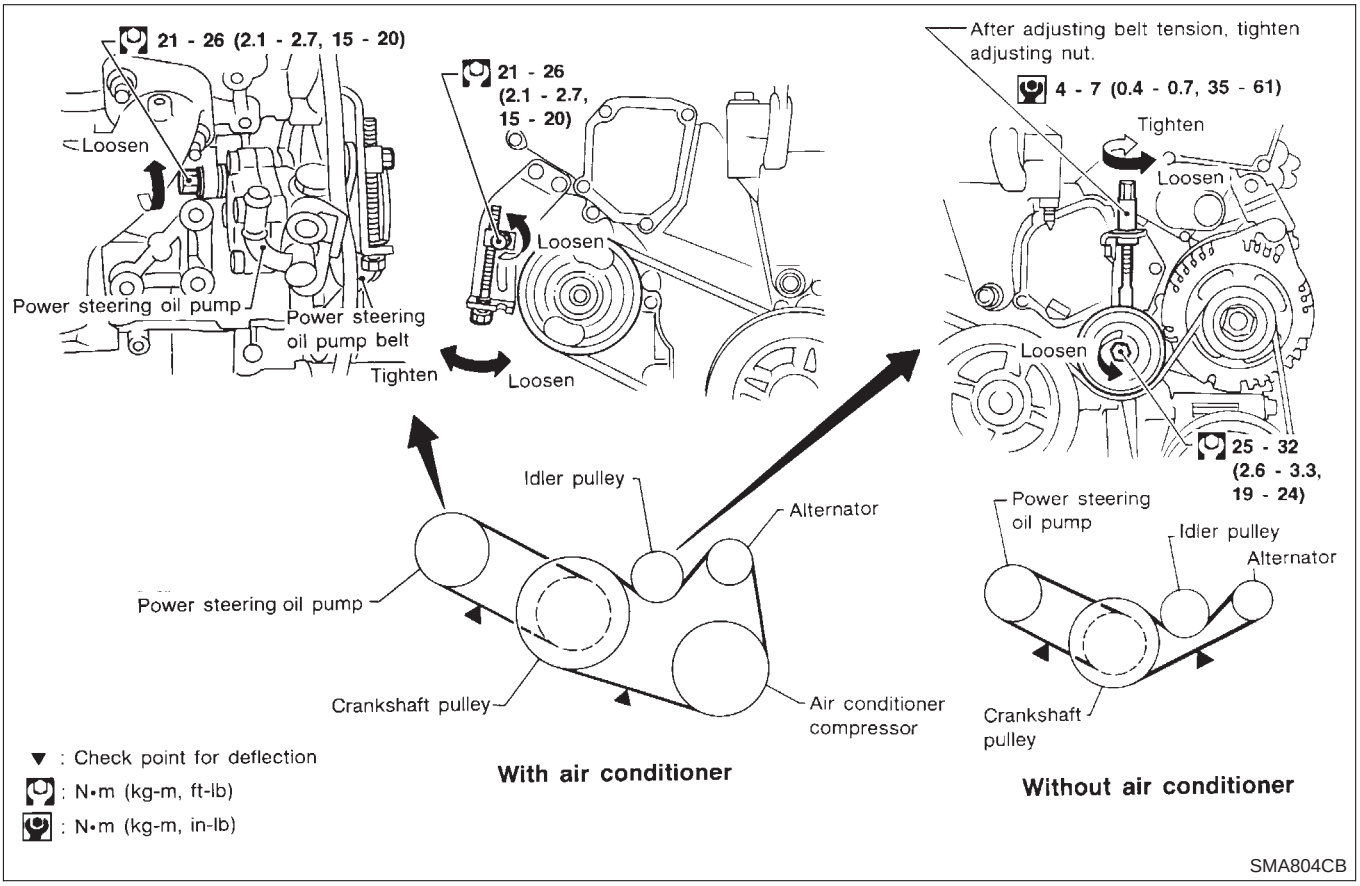
Engine coolant mixture ratio	Coolant temperature °C (°F)			
	15 (59)	25 (77)	35 (95)	45 (113)
30%	1.046 - 1.050	1.042 - 1.046	1.038 - 1.042	1.033 - 1.038
50%	1.076 - 1.080	1.070 - 1.076	1.065 - 1.071	1.059 - 1.065

WARNING:

Never remove the radiator cap when the engine is hot. Serious burns could be caused by high pressure fluid escaping from the radiator. Wait until the engine and radiator cool down.

Checking Drive Belts

NFMA0007

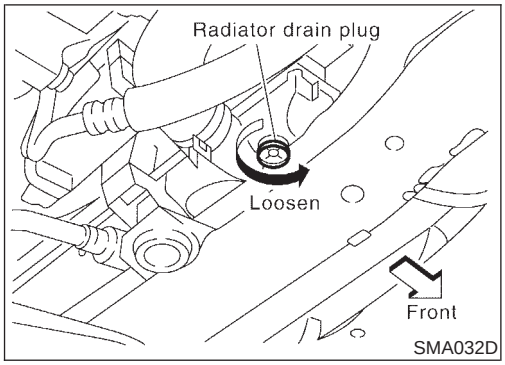


1. Inspect belts for cracks, fraying, wear and oil. If necessary, replace with a new one.
2. Inspect drive belt deflection at a point on the belt midway between pulleys.

- **Inspect drive belt deflection when engine is cold.**
- **Adjust if belt deflection exceeds the limit or it is not within specifications.**

Belt deflection:

		Deflection adjustment mm (in) Applied pushing force: 98 N (10 kg, 22 lb)		
		Used belt		New belt
		Limit	After adjustment	
Alternator	With air conditioner compressor	7 (0.28)	4.2 - 4.6 (0.165 - 0.181)	3.7 - 4.1 (0.146 - 0.161)
	Without air conditioner compressor	10 (0.39)	6.3 - 6.9 (0.248 - 0.272)	5.6 - 6.0 (0.220 - 0.236)
Power steering oil pump		11 (0.43)	7.3 - 8 (0.287 - 0.315)	6.5 - 7.2 (0.256 - 0.283)



Changing Engine Coolant

NFMA0008

WARNING:

- **To avoid the danger of being scalded, never change the coolant when the engine is hot.**
- **Wrap a thick cloth around cap and carefully remove the cap. At first, turn the cap a quarter of a turn to release built-up pressure. Then turn the cap all the way.**

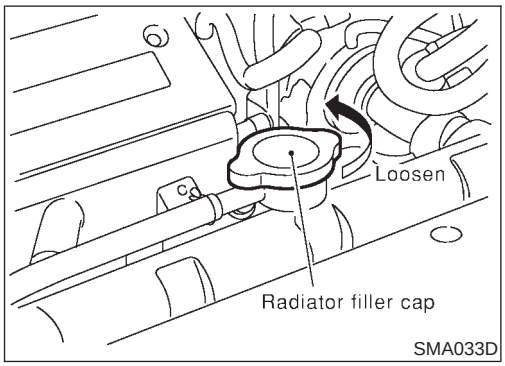
— DRAINING ENGINE COOLANT —

NFMA0008S01

1. Set air conditioning system as follows to prevent coolant from remaining in the system.

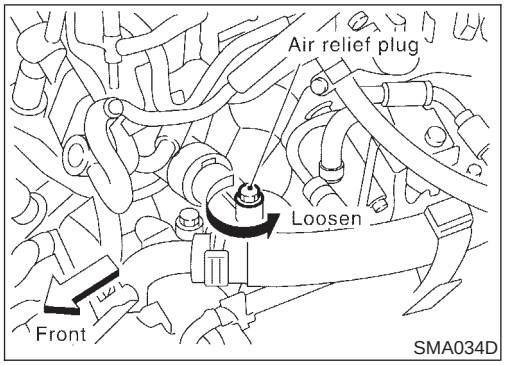
a. Turn ignition switch ON and set temperature controller to maximum hot position.

b. Wait 10 seconds before turning ignition switch OFF.

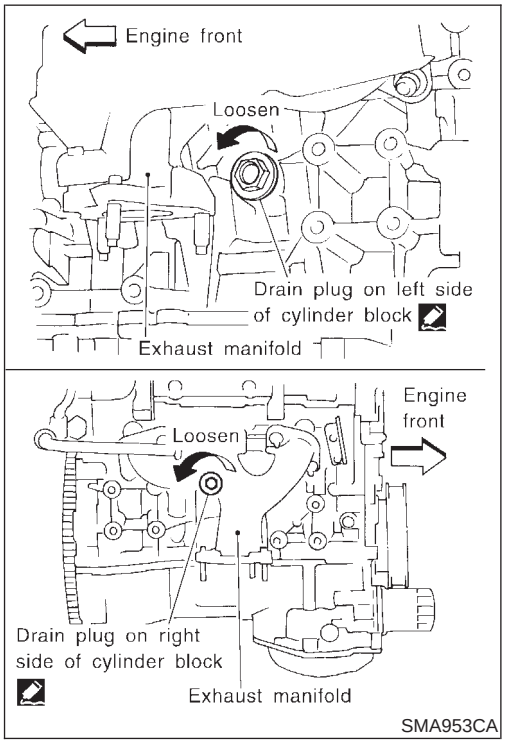


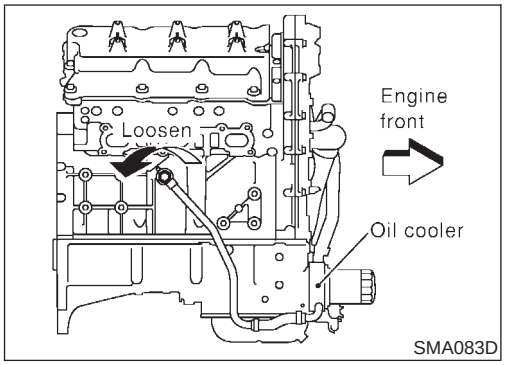
2. Open radiator drain plug at the bottom of radiator, and remove radiator filler cap.
3. Remove reservoir tank, drain coolant, then clean reservoir tank.

- **Be careful not to allow coolant to contact drive belts.**



4. Cover the exhaust tube heat shield to prevent from splashing coolant.
5. Remove drain plugs on both sides of cylinder block and air relief plug.
6. Check drained coolant for contaminants such as rust, corrosion or discoloration. If contaminated flush engine cooling system, refer to "FLUSHING COOLING SYSTEM", MA-18.
7. Blow the coolant around the exhaust tube heat shield.





— REFILLING ENGINE COOLANT —

NFMA0008S02

1. Install reservoir tank, and radiator drain plug.
2. Close and tighten cylinder block drain plugs securely.

- **Apply sealant to the thread of cylinder block drain plugs.**

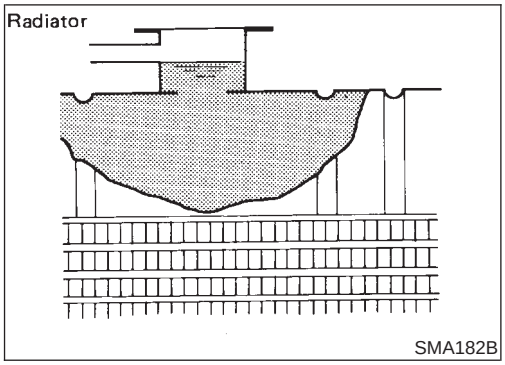
Left side:
: 60 - 66 N·m (6.1 - 6.7 kg-m, 44 - 48 ft-lb)
Right side:
: 18 - 22 N·m (1.8 - 2.2 kg-m, 13 - 16 ft-lb)
With oil cooler:
: 25 - 29 N·m (2.5 - 3.0 kg-m, 18 - 21 ft-lb)

3. Fill radiator slowly with coolant until coolant spills from the air relief plug, then install air relief plug.

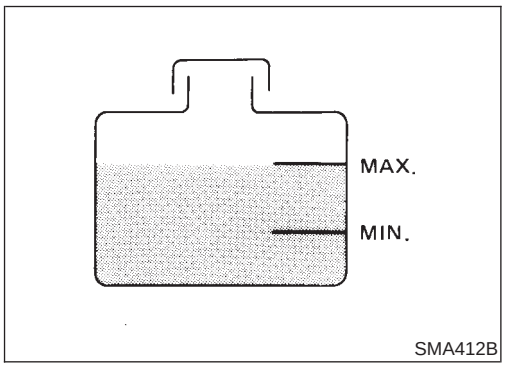
Air relief plug:
: 6.9 - 7.8 N·m (0.7 - 0.8 kg-m, 61 - 69 in-lb)

- **Use Nissan genuine engine coolant or equivalent.**

Changing Engine Coolant (Cont'd)



SMA182B



SMA412B

Refer to "RECOMMENDED FLUIDS AND LUBRICANTS" for coolant mixture ratio, MA-14.

Unit: ℓ (Imp qt)

	VQ20DE		VQ30DE	
	LHD	RHD	LHD	RHD
Engine coolant capacity (With reservoir tank)	8.5 (7-1/2)	8.2 (7-1/4)	7.7 (6-3/4)	7.4 (6-1/2)
Reservoir tank capacity	0.7 (5/8)			

- **Pour coolant through coolant filler neck slowly to allow air in system to escape.**

4. Fill radiator and reservoir tank to specified level.
5. Warm up engine to normal operating temperature without radiator cap installed.

- **If coolant overflows radiator filler hole, install filler cap.**

6. Run engine at 2,500 rpm for 10 seconds and return to idle speed with radiator cap installed.

- Repeat two or three times.

Watch coolant temperature gauge so as not to overheat the engine.

7. Stop engine and cool it down.

- Cool down using a fan to reduce the time.
- If necessary, refill radiator up to filler neck with coolant.

8. Refill reservoir tank to MAX level line with coolant.
9. Repeat steps 5 through 8 two or more times with radiator cap installed until coolant level no longer drops.
10. Check cooling system for leaks with engine running.
11. Warm up engine, and check for sound of coolant flow while running engine from idle up to 3,000 rpm with heater temperature controller set at several positions between COOL and WARM.

- Sound may be noticeable at heater water cock.

12. If sound is heard, bleed air from cooling system by repeating steps 5 through 8 until coolant level no longer drops

- **Clean excess coolant from engine.**

13. Check cooling system for leaks. Refer to MA-20.

— FLUSHING COOLING SYSTEM —

NFMA0008S03

1. Open air relief plug with drain plugs installed.
2. Open coolant passage to heater unit. Refer to step 1 of "DRAINING ENGINE COOLANT".
3. Fill radiator with water until water spills from the air relief hole, then close air relief plug. Fill radiator and reservoir tank with water and reinstall radiator cap.
4. Run engine and warm it up to until lower radiator hose becomes warm.
5. Rev engine two or three times under no-load.
   Watch coolant temperature gauge so as not to overheat the engine.
6. Stop engine and wait until it cools down.

- Cool with a fan to save time

7. Drain water.

8. Repeat steps 1 through 7 until clear water begins to drain from radiator.

Checking Cooling System

NFMA0037

CAUTION:

Do not remove the thermostat especially on engines with the thermostat in the water inlet side (radiator lower hose side). If the thermostat is removed, coolant flow to radiator and coolant pressure in upper radiator hose will be reduced. This will result in engine overheating.

CHECKING HOSES

NFMA0037S01

Check hoses for improper attachment and for leaks, cracks, damage, loose connections, chafing and deterioration.

CHECKING RADIATOR

NFMA0037S02

Check radiator for mud or clogging. If necessary, clean radiator as follows.

- Be careful not to bend or damage the radiator fins.
- When radiator is cleaned without removal, remove all surrounding parts such as cooling fan, radiator shroud and horns. Then tape the harness and connectors to prevent water from entering.

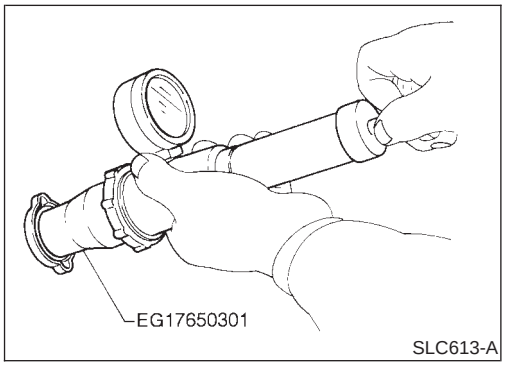
1. Apply water by hose to the back side of the radiator core vertically downward.
2. Apply water again to all radiator core surfaces once per minute.
3. Stop washing if any stains no longer flow out from the radiator.
4. Blow air into the back side of radiator core vertically downward.

- Use compressed air lower than 490 kPa (4.9 bar, 5 kg/cm^2, 71 psi) and keep distance more than 30 cm (11.8 in).

5. Blow air again into all the radiator core surfaces once per minute until no water sprays out.

NOTE:

For air conditioner equipped models, do the same on the condenser as the above.



SLC613-A

CHECKING RADIATOR CAP

NFMA0037S03

Apply pressure to radiator cap with cap tester to see if it is satisfactory.

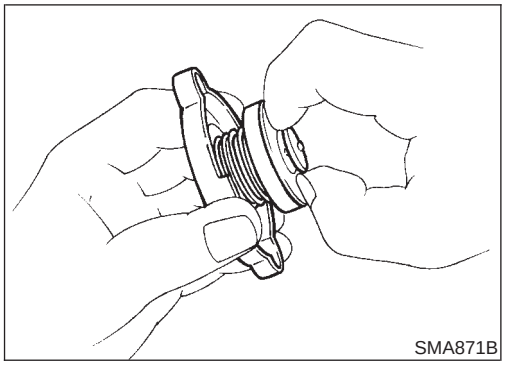
Radiator cap relief pressure:

Standard

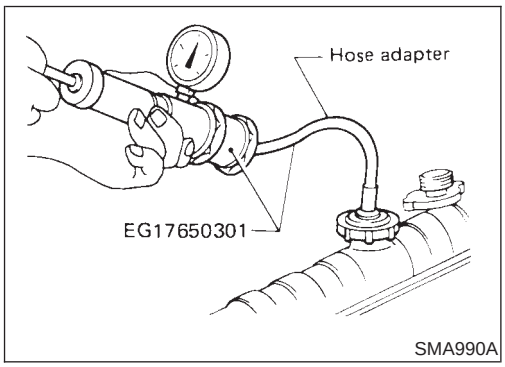
78 - 98 kPa (0.78 - 0.98 bar, 0.8 - 1.0 kg/cm^2, 11 - 14 psi)

Limit

59 - 98 kPa (0.59 - 0.98 bar, 0.6 - 1.0 kg/cm^2, 9 - 14 psi)


SMA871B

Pull the negative-pressure valve to open it. Check that it closes completely when released.



SMA990A

CHECKING COOLING SYSTEM FOR LEAKS

NFMA0037S04

To check for leakage, apply pressure to the cooling system with a tester. Check that the pressure does not drop for at least 2 minutes.

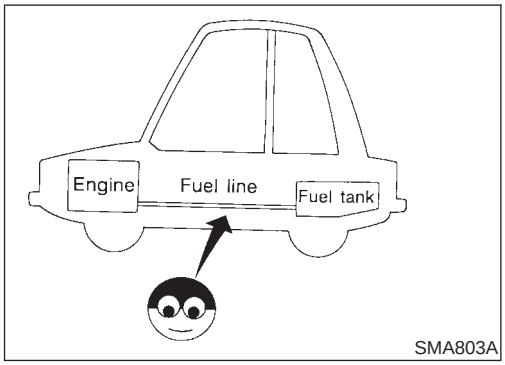
Testing pressure:

157 kPa (1.57 bar, 1.6 kg/cm^2, 23 psi)

CAUTION:

Higher than the specified pressure may cause radiator damage.

If the pressure drops, check hoses, radiator and water pump for leaks. If no external leaks are found, check heater core, cylinder block and cylinder head.

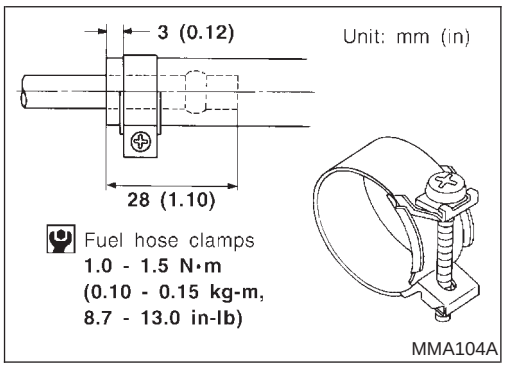


SMA803A

Checking Fuel Lines

NFMA0009

Inspect fuel lines and tank for improper attachment, leaks, cracks, damage, loose connections, chafing or deterioration. If necessary, repair or replace faulty parts.



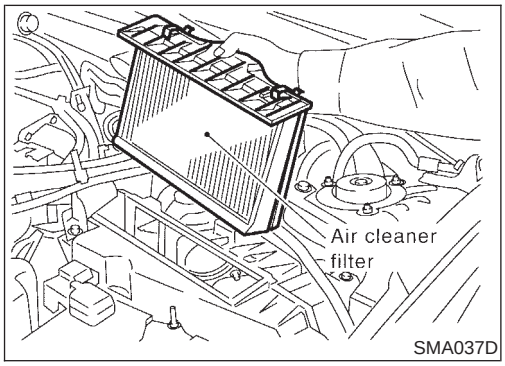
MMA104A

CAUTION:

Tighten high-pressure rubber hose clamp so that clamp end is 3 mm (0.12 in) from hose end.

Tightening torque specifications are the same for all rubber hose clamps.

Ensure that screw does not contact adjacent parts.



SMA037D

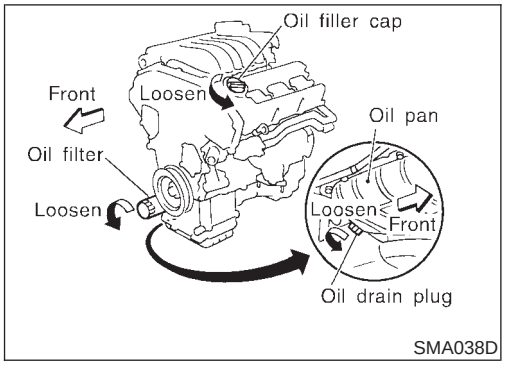
Changing Air Cleaner Filter

NFMA0011

VISCOUS PAPER TYPE

NFMA0011S01

The viscous paper type filter does not need cleaning.



SMA038D

Changing Engine Oil

NFMA0012

WARNING:

- **Be careful not to burn yourself, as the engine oil is hot.**
- **Prolonged and repeated contact with used engine oil may cause skin cancer; try to avoid direct skin contact with used oil. If skin contact is made, wash thoroughly with soap or hand cleaner as soon as possible.**

1. Warm up engine, and check for oil leakage from engine components.
2. Stop engine and wait more than 10 minutes.
3. Remove drain plug and oil filler cap.
4. Drain oil and refill with new engine oil.

Oil specification and viscosity:

- **Refer to "RECOMMENDED FLUIDS AND LUBRICANTS", MA-13.**

Oil capacity (Approximate):

Unit: liter (Imp qt)

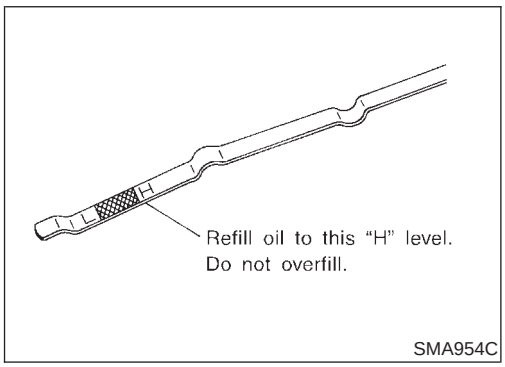
Drain and refill	With oil filter change	4.0 (3-1/2)
	Without oil filter change	3.7 (3-1/4)
Dry engine (engine overhaul)		4.2 (3-3/4)

CAUTION:

- **Be sure to clean drain plug and install with new washer.**

Oil pan drain plug:

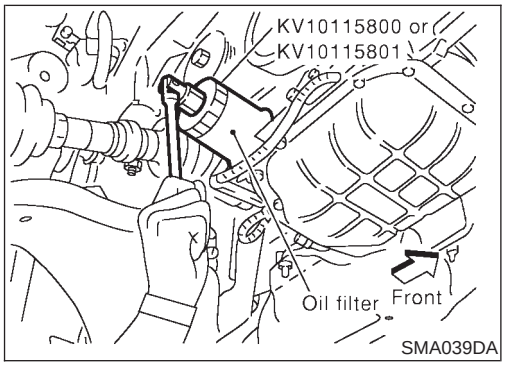
: 29 - 39 N·m (3.0 - 4.0 kg-m, 22 - 29 ft-lb)



SMA954C

- **The refill capacity depends on the oil temperature and drain time. Use these specifications for reference only. Always use the dipstick to determine when the proper amount of oil is in the engine.**
- **Never pull out level gauge while filling engine oil.**

5. Warm up engine and check area around drain plug and oil filter for oil leakage.
6. Stop engine and wait more than 10 minutes.
7. Check oil level.



SMA039DA

Changing Oil Filter

NFMA0013

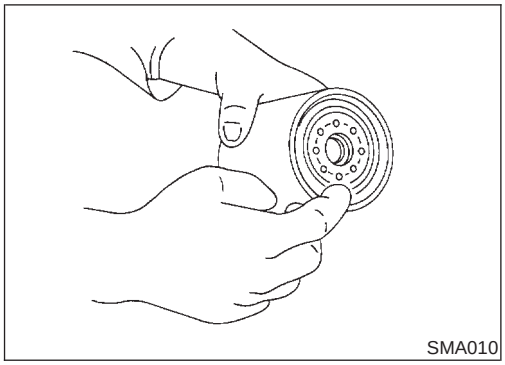
1. The oil filter is a small full-flow cartridge type and is provided with a relief valve.

Refer to LC-6, "Oil Filter".

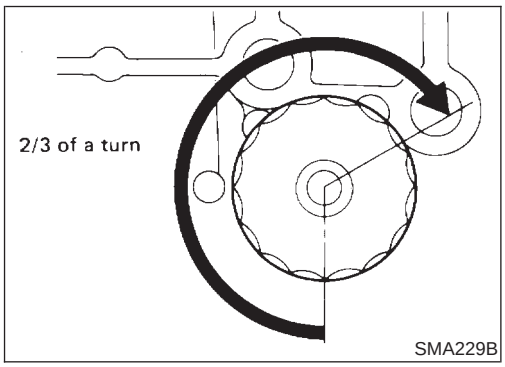
2. Remove oil filter with Tool or suitable tool.

WARNING:

Be careful not to burn yourself, as the engine and the engine oil are hot.


SMA010

3. Before installing new oil filter, clean oil filter mounting surface on cylinder block. Coat rubber seal of new oil filter with engine oil.



SMA229B

4. Screw in the oil filter until a slight resistance is felt, then tighten additionally 2/3 turn.
5. Add engine oil.

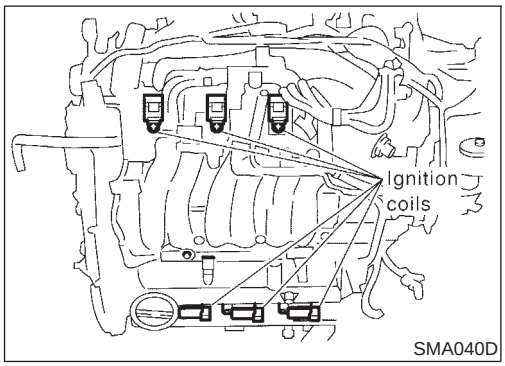
Oil filter:

: 14.7 - 20.5 N·m (1.5 - 2.1 kg-m, 11 - 15 ft-lb)

Refer to "Changing Engine Oil", MA-21.

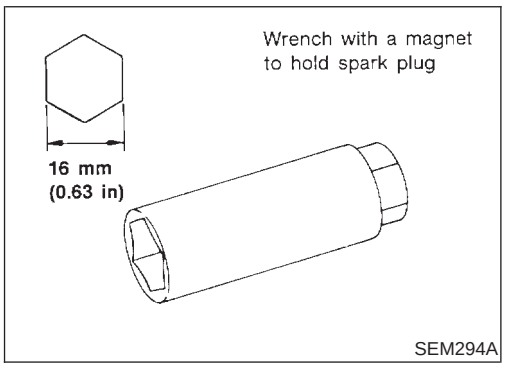
Changing Spark Plugs (Platinum-tipped Type)

NFMA0014



SMA040D

1. Remove left side rocker cover ornament.
2. Disconnect ignition coil harness connectors.
3. Loosen ignition coil fixing bolts and pull out coil from intake manifold connector.



SEM294A

4. Remove spark plugs with suitable spark plug wrench.

Spark plug (Platinum-tipped type):

Make	NGK
Standard type	PFR5G-11
Hot type	PFR4G-11
Cold type	PFR6G-11

Use standard type spark plug for normal condition.
The hot type spark plug is suitable when fouling may occur with the standard type spark plug such as:

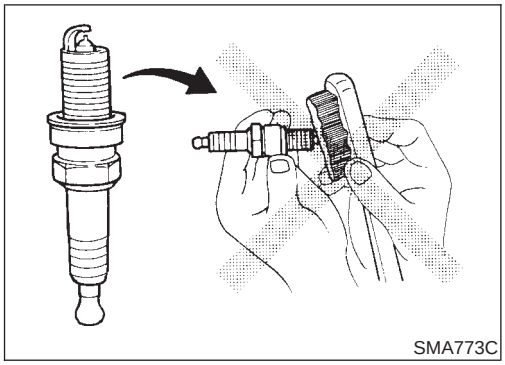
- frequent engine starts
- low ambient temperatures

The cold type spark plug is suitable when spark knock may occur with the standard type spark plug such as:

- extended highway driving
- frequent high engine revolution

Gap (Nominal): 1.1 mm (0.043 in)

: 20 - 29 N·m (2.0 - 3.0 kg-m, 14 - 22 ft-lb)


SMA773C

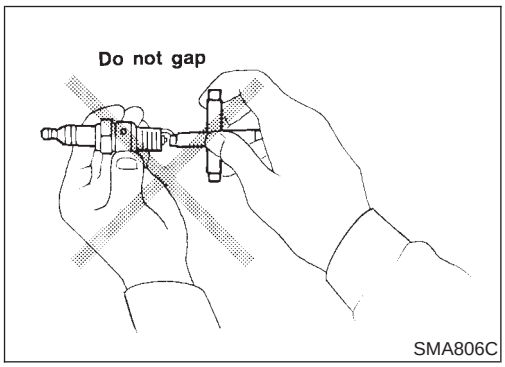
- **Do not use a wire brush for cleaning.**
- **If plug tip is covered with carbon, spark plug cleaner may be used.**

  Cleaner air pressure:

  Less than 588 kPa (5.9 bar, 6 kg/cm^2, 85 psi)

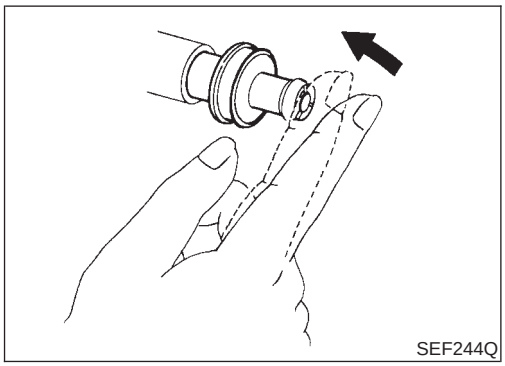
  Cleaning time:

  Less than 20 seconds



SMA806C

- **Checking and adjusting plug gap is not required between removals.**


SEF244Q

Checking Positive Crankcase Ventilation (PCV) System

NFMA0035

CHECKING PCV VALVE

NFMA0035S01

With engine running at idle, remove ventilation hose from PCV valve; if valve is working properly, a hissing noise will be heard as air passes through it and a strong vacuum should be felt immediately when a finger is placed over valve inlet.

CHECKING VENTILATION HOSES

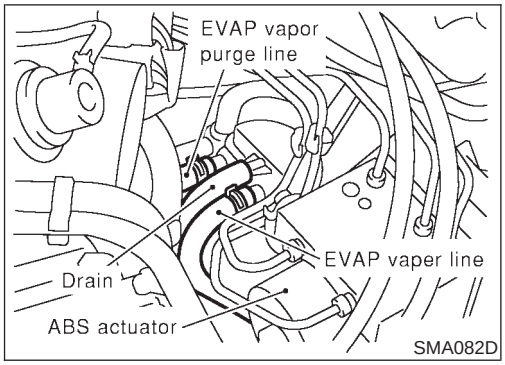
NFMA0035S02

1. Check hoses and hose connections for leaks.
2. Disconnect all hoses and clean with compressed air. If any hose cannot be freed of obstructions, replace.

Checking Vacuum Hose and Connections

NFMA0038

Check vacuum hoses for improper attachment and for leaks, cracks, damage, loose connections, chafing and deterioration.



Checking EVAP Vapor Lines

NFMA0015

1. Visually inspect EVAP vapor lines for improper attachment and for cracks, damage, loose connections, chafing and deterioration.
2. Inspect fuel tank filler cap vacuum relief valve for clogging, sticking, etc.

Refer to EC-32, “Evaporative Emission System”.

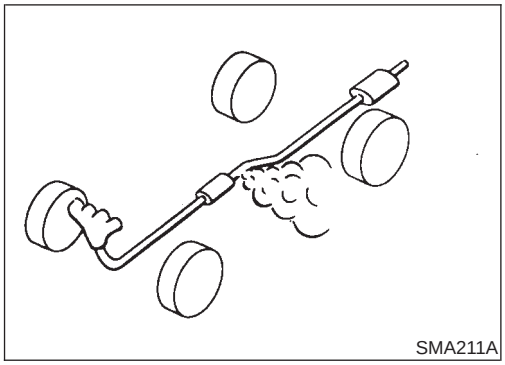
Checking Heated Oxygen Sensor (HO2S)

NFMA0039

CHECKING PROCEDURE

NFMA0039S01

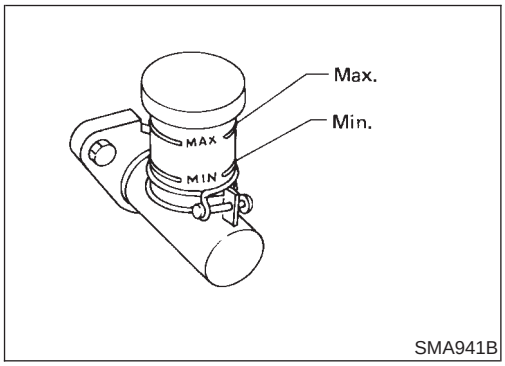
Refer to EC-454, “HEATED OXYGEN SENSOR 1 (FRONT)”.


SMA211A

Checking Exhaust System

NFMA0016

Check exhaust pipes, muffler and mounting for improper attachment, leaks, cracks, damage, chafing or deterioration.

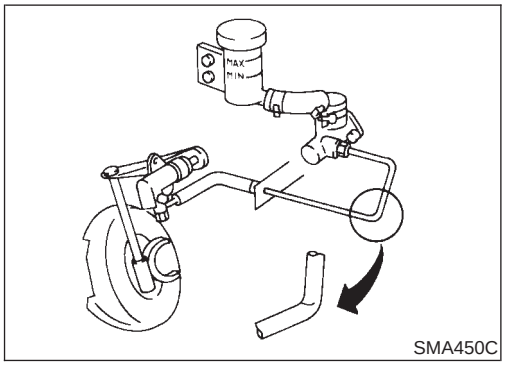


SMA941B

Checking Clutch Fluid Level and Leaks

NFMA0017

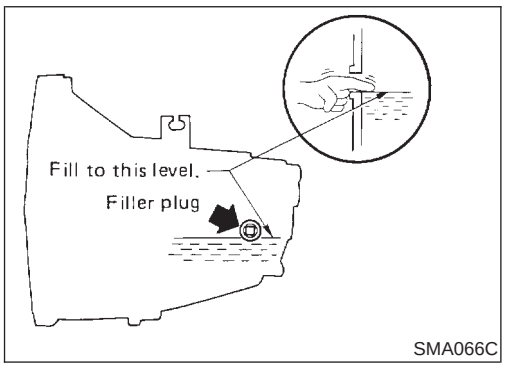
If fluid level is extremely low, check clutch system for leaks.


SMA450C

Checking Clutch System

NFMA0040

Check fluid lines and operating cylinder for improper attachment, cracks, damage, loose connections, chafing and deterioration.



SMA066C

Checking M/T Oil

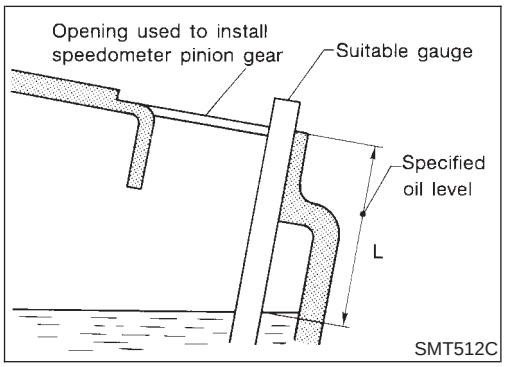
NFMA0018

Check for oil leakage and oil level.

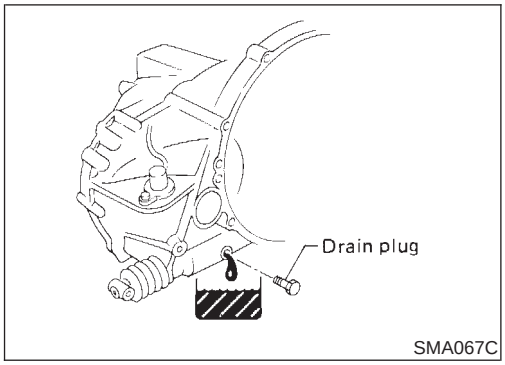
Never start engine while checking oil level.

Filler plug:

: 25 - 34 N·m (2.5 - 3.5 kg-m, 18 - 25 ft-lb)



SMT512C



Changing M/T Oil

=NFMA0019

1. Drain oil from drain plug and refill with new gear oil.
2. Check oil level.

Oil grade:

API GL-4

Viscosity:

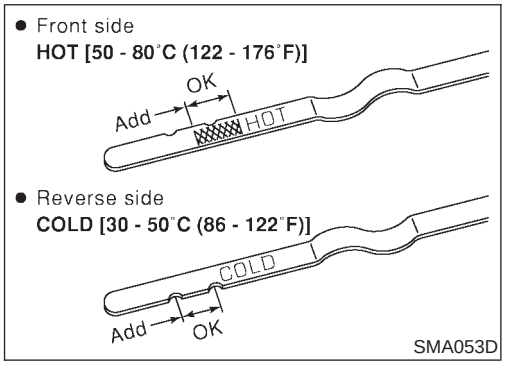
See “RECOMMENDED FLUIDS AND LUBRICANTS”, MA-13.

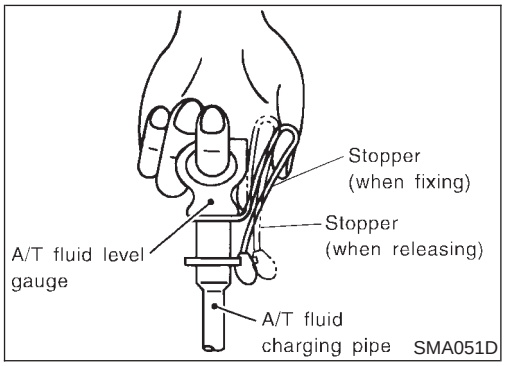
Capacity:

See “RECOMMENDED FLUIDS AND LUBRICANTS”, MA-13.

Drain plug:

: 15 - 20 N·m (1.5 - 2.0 kg-m, 11 - 14 ft-lb)





Checking A/T Fluid

NFMA0020

1. Warm up engine.
2. Check for fluid leakage.
3. Before driving, fluid level can be checked at fluid temperatures of 30 to 50°C (86 to 122°F) using “COLD” range on A/T fluid level gauge.

a. Park vehicle on level surface and set parking brake.
b. Start engine and move selector lever through each gear position. Leave selector lever in “P” position.
c. Check fluid level with engine idling.
d. Remove A/T fluid level gauge and wipe clean with lint-free paper.
e. Re-insert A/T fluid level gauge into charging pipe as far as it will go.
f. Remove A/T fluid level gauge and note reading. If reading is at low side of range, add fluid to the charging pipe.

Do not overfill.

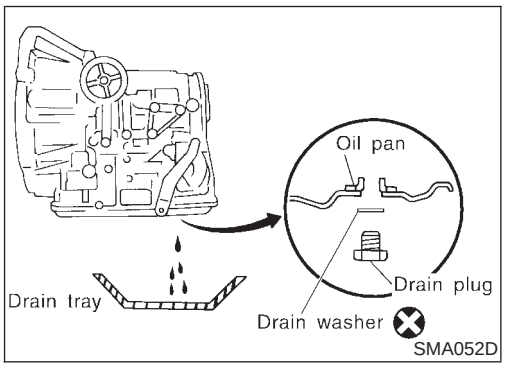
4. Drive vehicle for approximately 5 minutes in urban areas.
5. Re-check fluid level at fluid temperatures of 50 to 80°C (122 to 176°F) using “HOT” range on A/T fluid level gauge.

CAUTION:

Firmly fix the A/T fluid level gauge to the A/T fluid charging pipe using a stopper attached.


Check fluid for contamination.
SMA853B

6. Check fluid condition.
- If fluid is very dark or smells burned, refer to AT section for checking operation of A/T. Flush cooling system after repair of A/T.
- If A/T fluid contains frictional material (clutches, bands, etc.), replace radiator and flush cooler line using cleaning solvent and compressed air after repair of A/T. Refer to LC-18, "Radiator".



SMA052D

Changing A/T Fluid

NFMA0021

1. Warm up A/T fluid.
2. Stop engine.
3. Drain A/T fluid from drain plug and refill with new A/T fluid. Always refill same volume with drained fluid.

Fluid grade:
Genuine Nissan ATF or equivalent
Refer to "RECOMMENDED FLUIDS AND LUBRICANTS", MA-13.
Fluid capacity (With torque converter):
RE4F04B/RE4F04W
9.4 ℓ (8-1/4 Imp qt)
Drain plug:
: 29 - 39 N·m (3.0 - 4.0 kg-m, 22 - 29 ft-lb)

4. Run engine at idle speed for five minutes.
5. Check fluid level and condition. Refer to "Checking A/T Fluid". If fluid is still dirty, repeat step 2. through 5.

Balancing Wheels (Bonding Weight Type)

NFMA0022

REMOVAL

NFMA0022S01

1. Remove inner and outer balance weights from the road wheel.

CAUTION:
Be careful not to scratch the road wheel during removal procedures.

2. Using releasing agent, remove double-faced adhesive tape from the road wheel.

CAUTION:
- **Be careful not to scratch the road wheel during removal.**
- **After removing double-faced adhesive tape, wipe clean traces of releasing agent from the road wheel.**

WHEEL BALANCE ADJUSTMENT

NFMA0022S02

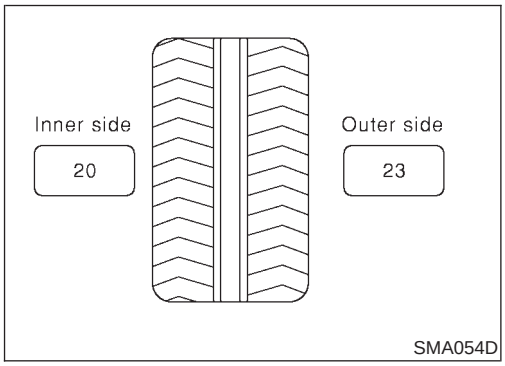
- If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for road wheels.

1. Set road wheel on wheel balancer using the center hole as a guide. Start the tire balance machine.
2. When inner and outer unbalance values are shown on the wheel balancer indicator, multiply outer unbalance value by 1.6 to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated

value above and install it to the designated outer position of, or at the designated angle in relation to the road wheel.

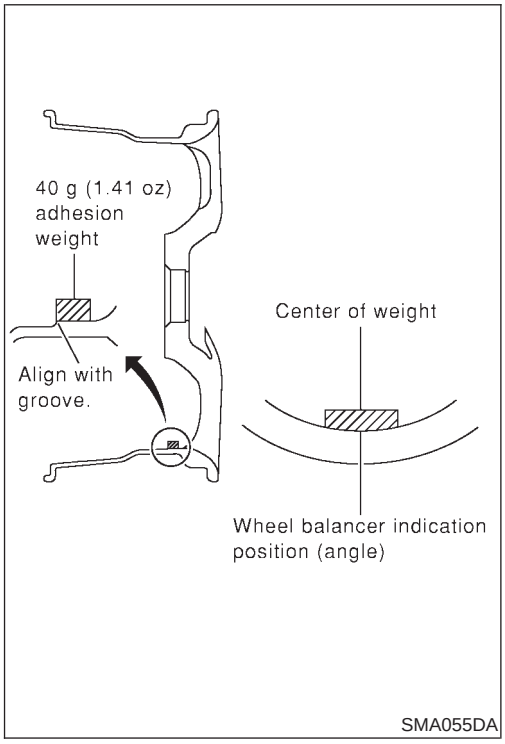
CAUTION:

- **Do not install the inner balance weight before installing the outer balance weight.**
- **Before installing the balance weight, be sure to clean the mating surface of the road wheel.**



SMA054D

Indicated unbalance value × 1.6 = balance weight to be installed
Calculation example:
23 g (0.81 oz) × 1.6 = 38.33 g (1.35 oz) = 40 g (1.41 oz) balance weight (closer to calculated balance weight value)
Note that balance weight value must be closer to the calculated balance weight value.
Example:
37.4 = 35 g (1.23 oz)
37.5 = 40 g (1.41 oz)

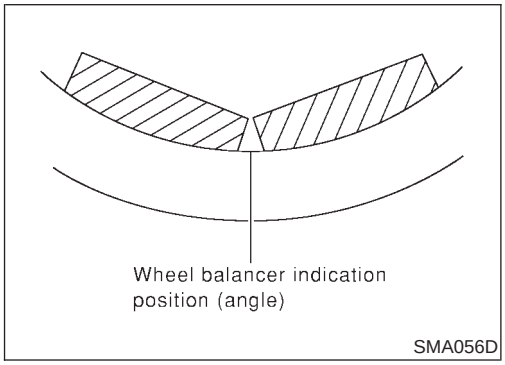


SMA055DA

a. Install balance weight in the position shown in the figure at left.
b. When installing balance weight to road wheels, set it into the grooved area on the inner wall of the road wheel as shown in the figure at left so that the balance weight center is aligned with the wheel balancer indication position (angle).

CAUTION:

- **Always use genuine Nissan adhesion balance weights.**
- **Balance weights are unreusable; always replace with new ones.**
- **Do not install more than three sheets of balance weight.**



SMA056D

c. If calculated balance weight value exceeds 50 g (1.76 oz), install two balance weight sheets in line with each other (as shown in the figure at left).

CAUTION:

Do not install one balance weight sheet on top of another.

3. Start wheel balancer again.
4. Install drive-in balance weight on inner side of road wheel in the wheel balancer indication position (angle).

CAUTION:

Do not install more than two balance weights.

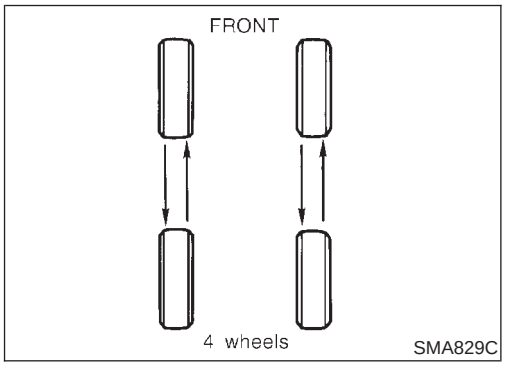
5. Start wheel balancer. Make sure that inner and outer residual

unbalance values are 10 g (0.35 oz) each or below.

- If either residual unbalance value exceeds 10 g (0.35 oz), repeat installation procedures.

Wheel balance (Maximum allowable unbalance):

Maximum allowable unbalance	Dynamic (At rim flange)	10 g (0.35 oz) (one side)
	Static	20 g (0.71 oz)



SMA829C

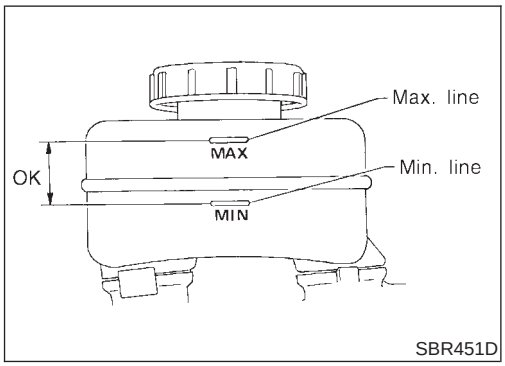
Tire Rotation

NFMA0023

- **Do not include the T-type spare tire when rotating the tires.**
- **After rotating the tires, adjust the tire pressure.**
- **Retighten the wheel nuts when the vehicle has been driven for 1,000 km (600 miles) (also in cases of a flat tire, etc.).**

Wheel nuts:

: 98 - 118 N·m (10.0 - 12.0 kg-m, 72 - 87 ft-lb)

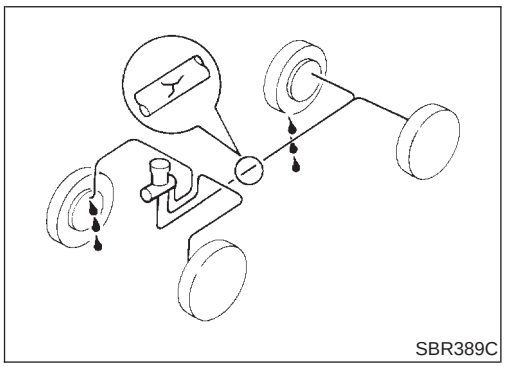


SBR451D

Checking Brake Fluid Level and Leaks

NFMA0024

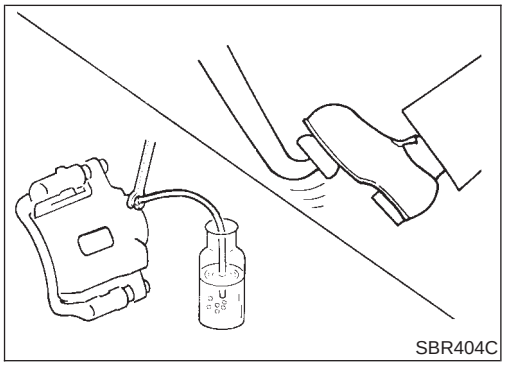
If fluid level is extremely low, check brake system for leaks.


SBR389C

Checking Brake Lines and Cables

NFMA0025

Check brake fluid lines and parking brake cables for improper attachment, leaks, chafing, abrasions, deterioration, etc.


SBR404C

Changing Brake Fluid

NFMA0041

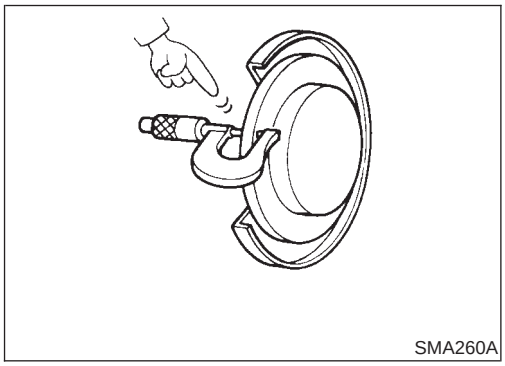
1. Drain brake fluid from each air bleeder valve.
2. Refill until new brake fluid comes out from each air bleeder valve.
   Use same procedure as in bleeding hydraulic system to refill brake fluid.
   Refer to BR-8, "Bleeding Brake System".

- **Refill with recommended brake fluid.**
  See "RECOMMENDED FLUIDS AND LUBRICANTS".
- **Never reuse drained brake fluid.**
- **Be careful not to splash brake fluid on painted areas.**

Checking Brake Booster, Vacuum Hoses, Connections and Check Valve

NFMA0042

Check vacuum lines, connections and check valve for improper attachment, air tightness, chafing and deterioration.


SMA260A

Checking Disc Brake

NFMA0026

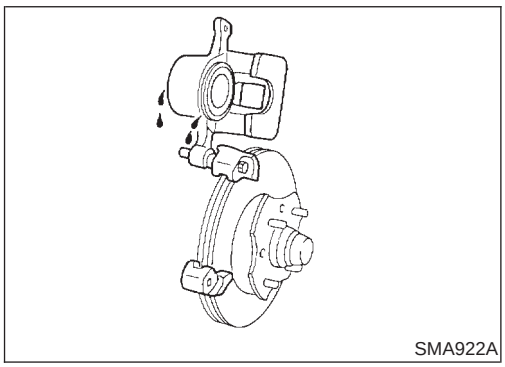
ROTOR

NFMA0026S01

Check condition and thickness.

Unit: mm (in)

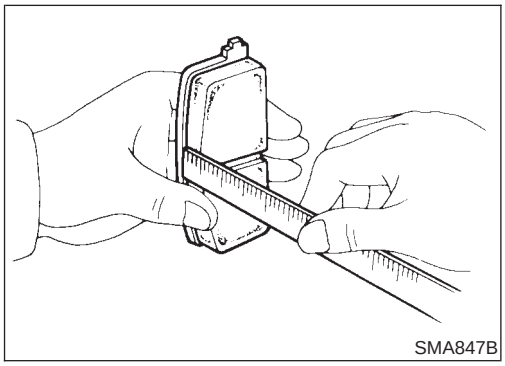
	Front	Rear
Brake model	CLZ25VC	CL9HB
Standard thickness	26 (1.02)	9 (0.35)
Maximum runout	0.07 (0.0028)	0.07 (0.0028)
Minimum thickness (Wear limit)	24.0 (0.945)	8.0 (0.315)


SMA922A

CALIPER

NFMA0026S02

Check for leakage.


SMA847B

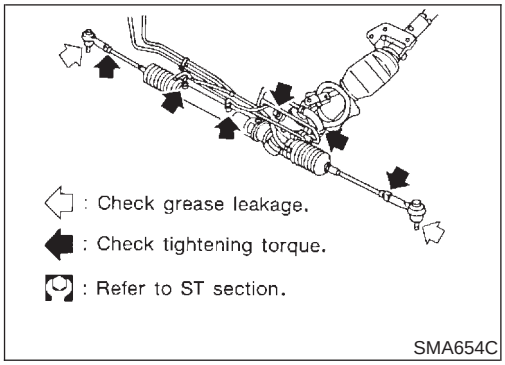
PAD

NFMA0026S03

Check for wear or damage.

Unit: mm (in)

Brake model	CLZ25VC	CL9HB
Standard thickness	11 (0.43)	10 (0.39)
Minimum thickness (Wear limit)	2.0 (0.079)	1.5 (0.059)



SMA654C

Checking Steering Gear and Linkage

NFMA0027

STEERING GEAR

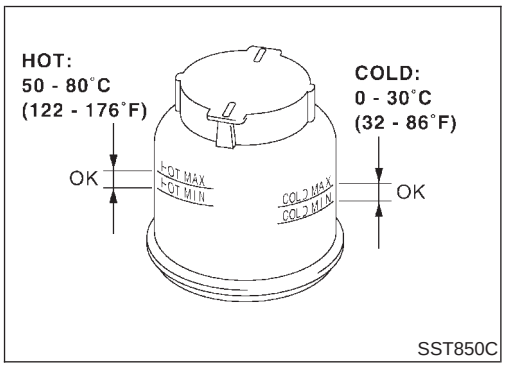
NFMA0027S01

- Check gear housing and boots for looseness, damage and grease leakage.
- Check connection with steering column for looseness.

STEERING LINKAGE

NFMA0027S02

Check ball joint, dust cover and other component parts for looseness, wear, damage and grease leakage.



SST850C

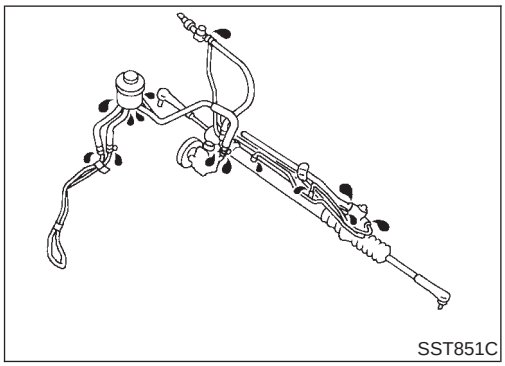
Checking Power Steering Fluid and Lines

NFMA0028

Check fluid level in reservoir tank with engine off.
Use “HOT” range at fluid temperatures of 50 to 80°C (122 to 176°F) or “COLD” range at fluid temperatures of 0 to 30°C (32 to 86°F).

CAUTION:

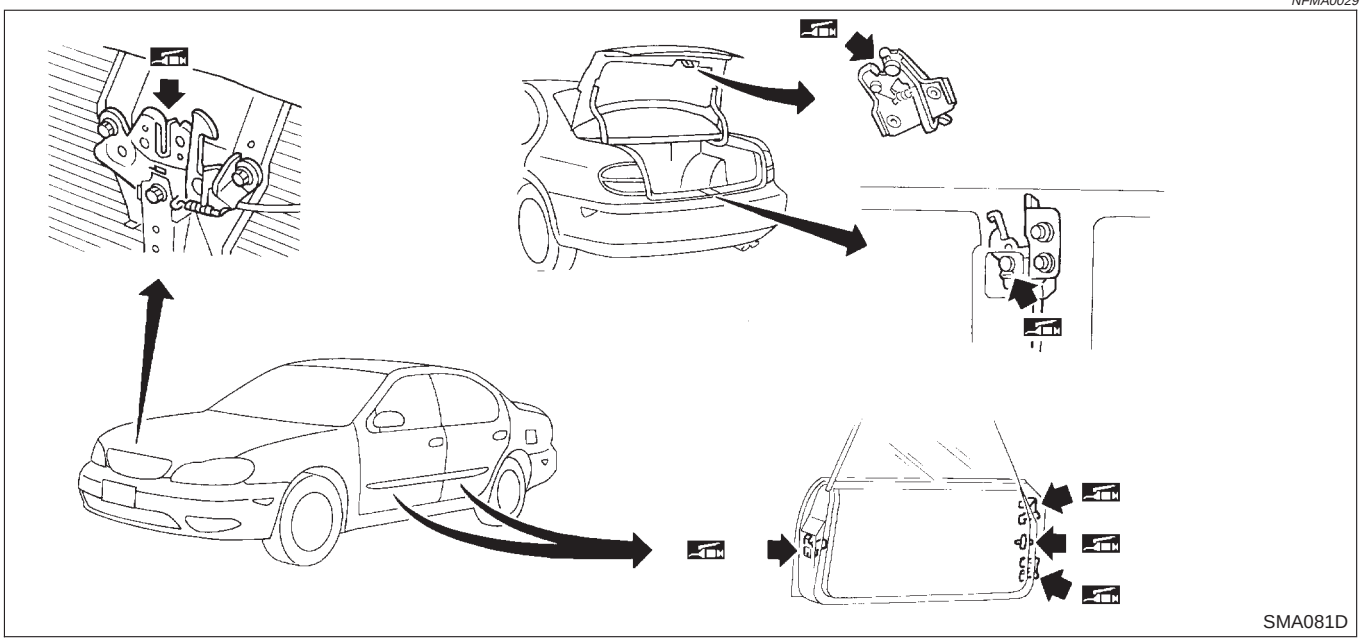
- **Do not overfill.**
- **Recommended fluid is type Dexron™III or equivalent. Refer to “RECOMMENDED FLUIDS AND LUBRICANTS”, MA-13.**


SST851C

- Check lines for improper attachment, leaks, cracks, damage, loose connections, chafing and deterioration.
- Check rack boots for accumulation of power steering fluid.

Lubricating Locks, Hinges and Hood Latches

NFMA0029


SMA081D

Checking Seat Belts, Buckles, Retractors, Anchors and Adjusters

NFMA0030

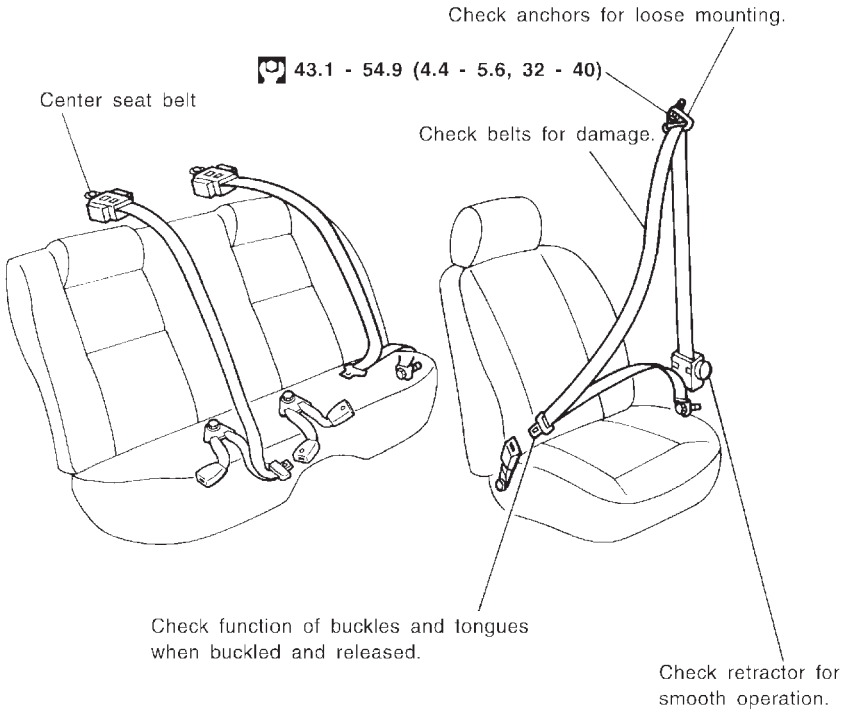
CAUTION:

- After any collision, inspect all seat belt assemblies, including retractors and other attached hardwares (i.e. anchor bolt, guide rail set). Nissan recommends to replace all seat belt assemblies in use during a collision, unless not damaged and properly operating after minor collision.
  Also inspect seat belt assemblies not in use during a collision, and replace if damaged or improperly operating.
  Seat belt pre-tensioner should be replaced even if the seat belts are not in use during a frontal collision where the driver and passenger air bags are deployed.
- If any component of seat belt assembly is questionable, do not repair. Replace as seat belt assembly.
- If webbing is cut, frayed, or damaged, replace belt assembly.
- Never oil tongue and buckle.
- Use a genuine seat belt assembly.

For details, refer to "SEAT BELTS" in RS section.

Anchor bolt
43.1 - 54.9 (4.4 - 5.6, 32 - 40)

: N•m (kg-m, ft-lb)



SMA042DA

Checking Body Corrosion

NFMA0044

Visually check body panels for corrosion, paint damage (scratches, chipping, rubbing, etc.) or damage to the anti-corrosion materials. In particular, check the following locations.

Hemmed panels
Hood front end, door lower end, trunk lid rear end, etc.

Panel joint
Side sill of rear fender and center pillar, rear wheel housing of rear fender, around strut tower in engine compartment, etc.

Panel edge
Trunk lid opening, sunroof opening, fender wheel-arch flange, fuel filler lid flange, around holes in panel, etc.

Parts contact
Waist moulding, windshield moulding, bumper, etc.

Protectors
Damage or condition of mudguard, fender protector, chipping protector, etc.

Anti-corrosion materials
Damage or separation of anti-corrosion materials under the body.

Drain holes
Condition of drain holes at door and side sill.

When repairing corroded areas, refer to the Corrosion Repair Manual.

Engine Maintenance

BELT DEFLECTION AND TENSION

NFMA0031

		Deflection adjustment mm (in)		
		Used belt		New belt
		Limit	After adjustment	
Alternator	With air conditioner compressor	7 (0.28)	4.2 - 4.6 (0.165 - 0.181)	3.7 - 4.1 (0.146 - 0.161)
	Without air conditioner compressor	10 (0.39)	6.3 - 6.9 (0.248 - 0.272)	5.6 - 6.0 (0.220 - 0.236)
Power steering oil pump		11 (0.43)	7.3 - 8 (0.287 - 0.315)	6.5 - 7.2 (0.256 - 0.283)
Applied pushing force		98 N (10 kg, 22 lb)		

SPARK PLUG (PLATINUM-TIPPED TYPE)

NFMA0032

Make		NGK
Type	Standard	PFR5G-11
	Hot	PFR4G-11
	Cold	PFR6G-11
	Plug gap mm (in)	1.1 (0.043) (Nominal)

Chassis and Body Maintenance

WHEEL BALANCE

NFMA0033

Maximum allowable unbalance	Dynamic (At rim flange)	10 g (0.35 oz) (one side)
	Static	20 g (0.71 oz)